ISTITUTO SIEROTERAPICO MILANESE

17/6/52

Dear Jo shua,

I am surprised that you selected the right name out of the two ~~my~~; actually, although my only true Christian name is Luigi, I have been always called Luca in the last ten years. I hope you have meanwhi-le received letters of invitation from the Genetics and Microbiology Congresses, although both were not what I wanted exactly. No official decision has been reached yet concerning who shall give invited papers, so that the letter of invitation from the Genetics Congress could not specify this point; as to the Microbiology Congress it is somewhat out of my reach, but I suggested/Penso, who is in charge of the organization of the M. Congress and of a symposium on actinomycetes to let you have an invitation for both. The organization of the M. congress is much behind that of the Genetics, and the microbiologists in charge are , some of them at least, of a very old generation. Dates are as follows : 25-31st August, Genetics at Bellagio; 1-5 September , Biometric conference at Bellagio (which will keep me busy during that week); 6-12 September, Microbiology congress at Rome. There will be genetical and microbiological sessions at the Biometric conference. Another news that may interest you , unless you already know about it, is that Ryan is in charge of grants and journey organization for geneticists attending the Bellagio Congress. I shall be very pleased to have you as guests in my laboratory as long as you will like, and you can also be my guests at home, while in Milan, as the family will be away during the summer. We might also plan a tour together, if I shall have a car next summer. When you will know how long you can spend in Italy, we may be able to plan your stay here.

Re work. I start doubting most of my early results on Hfr x Hfr crosses. Not only is the progeny of Hfr x Hfr undoubtedly Hfr, as you say (and here I could explain my early results by thinking that part of the cells were in a Hfr, part in a non-Hfr condition), but also the progeny of Hfr x F- seems F-. These results have not yet been checked-and in any case I shall have to repeat them in various conditions in view of inconsistency with earlier data, but if true, they would dispose of Hayes's idea-which I had in a way adopted - that F+, or F, is an essential part of the gamete.

I have been doing some kinetical experiments, whereby it would seem that every F+ cell can infect no more or little more than one F- cell, after which it remains non infective for a period that is still to be determined. Should we call F a virus, we have the condition of provirus as for other systems. Hfr would then contain only provirus (?).

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Expts.with DNA-ase and RNA-ase (purified) were ineffective when using intact cells.A small hope has been raised by the observation that lysozyme reduced infectivity of F+ cells; perhaps the virus may be kept fixed to the cell by a layer of mucopolysaccharide.I am trying to repeat(one is always working with so small numbers) these observations in various conditions.I have made one only experiment with streptomycin,using W 826 as $S^{s}F+$ strain; no crossing observed with St-sterilized cells. This I want to repeat again.I hope to get some of this stuff ready for the JGM paper,which I should be sending to you in two or three weeks time.

There will be a symposium on microbial genetics,to which a number of European research workers will take part plus a few Americans now in Europe. The stuff will not be published.What would you think of me giving the JGM paper there ,with the same title and authors as for the journal? I shall have little time for additions to it,since the symposium will be in the first week of September,and I shall be away since July the 2oth to the end of the month,while in the first fortnight of August the laboratory will close. *

We have been doing some microscopical observation on Hfr x F-.Nothing really interesting,sofar. Clumping due to Hfr,which you have observed, can also be detected by the inconsistency of Lac+/Lac- ratios out of mixtures of Lac+Hfr/lac-F- in parallel plates. There is also a clumping due to streptomycin on streptomycin agar,which we rediscovered recently.Is there anything new on this line in your laboratory?

Yours sincerely

luca.

* if there are any further observations that you might think worth inclusion in the paper for the Symposium will you let me know.